STRAWBERRY PLANTS

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U. S. Department of Agriculture



Fairview Fruit Farm

Pierceton, Indiana

STRAWBERRIES

"The Universal Fruit"

The more we work with this great strawberry, the more we like to think of it as the world's most universal fruit; universal in that its supreme adaptability to so many different soils and climates makes it available to so many people, and universal in that its striking appearance, its delicate aroma and its delicious flavor are so appealing to so many. The season's first and finest fruit.

For, happily, as we think of this remarkably wonderful strawberry, it is not just the wishful wandering of the imagination on a cold winter night. This marvelous fruit so appealing to everyone adapts itself so readily to so many different situations that it is common in every state. It thrives on such a wide variety of soils that your own just suits it. It is yours for the trying and the doing.

Strawberries come right down to earth, too. For they will not only give you from your own garden great quantities of as delicious a fruit as the world knows, but they also offer excellent commercial opportunities. In these days of steadily mounting pressure on the farmer with a relatively small acreage, that farmer may find in strawberries, especially if he has some extra help around his place, an opportunity to augment his income with a project which requires little cash outlay in costly equipment but a relatively quick cash return for his labor and investment.

Here is an opportunity for a teen-ager to earn much needed money for personal expenses, clothing or education. To the man retired or semi-retired, strawberries offer a hobby both pleasant and profitable. Strawberry culture is not a complicated procedure, there is nothing strange or difficult about it. A complete novice can be reasonably successful by supplementing his own common sense with the suggestions in this book.

This booklet is written for the information of our customers. In it we have tried to give helpful hints on growing and handling berries, and as accurate descriptions as we can of the varieties we handle. In growing strawberries for fruit as well as plants, our problems are pretty much the same as yours, and the things we have worked out will go along very closely to your own ideas.

It is our business to give you the best strawberry plants you can get anywhere, at the price and with the service that will please you.

Our plants are grown on deep, rich, well-cultivated soil. The roots are heavy and long, white and vigorous. The loose soil enables us to retain on the plant the many long, fibrous roots so often lost in digging on heavier soils.



Our plants are hand dug and immediately moved indoors for cleaning, sorting, counting and tying. There the old runners and dead leaves are removed, small and other questionable plants discarded. Roots are straightened, and plants tied in a nice bunch of twenty-five, full count, easy to handle, ready to set. The kind of cleaning and sorting job you like to have done.

Our plants are carefully packed in moss for shipment, guaranteed to reach you in good growing condition throughout the shipping season, up to May 10. After that date we will handle the plants as carefully as we can, but shipment must be made at the buyer's risk.

We are growers of plants, not jobbers. Our prices are farmers' and growers' prices, low enough for the commercial grower or for your garden, high enough to enable us to maintain our high standard of quality. Compare our quality, compare our prices.

I like for our customers to come here to the nursery for your plants. You can then see exactly what and how the plants are, possibly make a better choice of variety. You can generally get your plants just when you want them and when your ground is in best shape for transplanting, avoiding the delay too often experienced in shipping. The savings in shipping charges will go quite a long way toward paying expenses of the trip.

We do have a very personal interest in your success with our berry plants.

VIRUS IN STRAWBERRY PLANTINGS

We have lately heard and read so much about the virus in strawberry plantings and virus-free strains that it seems to be time to evaluate its importance and decide what to do.

A few years ago it seemed that in many cases, especially in areas of large commercial plantings, strawberries no longer grew and produced as they once had. The decline was so pronounced that the whole industry was threatened and many growers were forced from the business. Plant pathologists working in the U.S.D.A. and various state experiment stations established the primary source of the trouble as a virus infection.

Virus symptoms differ with the variety of berry and the type of virus. Leaves may become mottled, variegated, wrinkled, or dwarfed. The plants may seem bunched or clumped and have a bluish tinge. The chief characteristic of the disease is a general decline in growth and vigor of the plantings. Not as many plants are made, plants are smaller, production curtailed. Certain varieties are hurt more than others. The western favorite Marshall and the Midland are very susceptible, Catskill production seriously lowered.

Happily, however, it was discovered that strawberry virus is carried by certain aphids. So if we can start with stock that is virus-free we can maintain this condition by spraying or dusting our strawberry beds with a strong aphicide at frequent intervals. The best aphicides available are malathion and parathion.

We have therefore obtained virus-free stock from sources recommended by the U.S.D.A., isolated it from other stock, and dusted with 1% parathion throughout the growing season at frequent intervals, to maintain the disease-free condition. This is what we mean when we say that cur plants are grown from virus-free stock. Indiana does not as yet have a virus-free certification program.

I would like to suggest that we should not attribute every strawberry trouble to the virus. "June Yellows" to which Blakemore is more or less subject, as is Premier to a small extent, and red stele have nothing to do with the virus. Virus- free stock helps, but will not solve all our growing problems. Nor can we attribute every failure to a virus condition.

Waterman, Illinois

May 21, 1958

"Your strawberry plants were fine as always. We have used your plants for fourteen years. They have always been fine and at a reasonable price. I think I shall continue to use them. We had all the plants set in two days, then had a nice rain. They have already started to grow and we have a nice stand."

Thomas W. Bennett

BERRY CULTURE

SOIL AND CLIMATE

While the adaptability of strawberries to anything from the light sands of Florida to the heavy clays of Southern Indiana gives us plenty of leeway, we do rather prefer a sandy loam because it is so easily worked. And while the climatic range in our country is from the Gulf states to the Dakotas, we really think of our strawberry belt as extending from Tennessee and Arkansas north to Michigan and Wisconsin.

Whatever the type of soil, it must be high in fertility and humus content. This condition is difficult to reach in one year, but should be attained in the years prior to being put to berries by the use of barnyard manure, legumes, fertilizers, green manure crops, and those other practices familiar to good farmers.

Fall plowing is a good step in plant bed preparation. Certainly the soil must be well worked down to eliminate all clods, and to make the plant bed firm but friable. It is best not to have had the ground in heavy sod the previous year on account of cut worms and white grubs. These pests may do a great deal of damage in early season by eating off the plants at ground level.

Strawberries will do best on a soil that is slightly acid. Technically, we say that a pH near 6 is best, a pH somewhere between 5 and 7 is satisfactory.



COMMERCIAL FERTILIZER

While the soil intended for a strawberry bed should carry a high fertility level, most of the garden and truck patch sites that we use for small plantings have already been manured well enough to require no further special treatment. But for the larger field plantings, liberal applications of commercial fertilizer will generally pay off well.

We like to broadcast and work into the soil before transplanting at least 1000 pounds of some good, high analysis fertilizer. Of course a higher analysis will take a smaller amount to do the same job. A soil analysis will indicate the best fertilizer to use, but something between a 4-16-16 and a 10-10-10 is a fair shot in the dark. We also like a side dressing of maybe 250 pounds in mid-summer.

We must be careful in using fertilizer on small patches or we shall use too much. One-third of a 50-lb bag to 100 plants is equivalent as a broadcast to 1000 lbs. per acre. As a side dressing, 1 pound to 50 feet of row is equivalent to 250 pounds to the acre. It is dangerous to use more.

In transplanting, avoid putting any fertilizer right around the plant. However, if you are using water and will add about three pounds of "starter solution", which is readily soluble and of a 10-51-17 approximate analysis, to 50 gallons of water and use half a pint per plant you will have some astonishingly successful results.

TIME FOR SETTING

Time and again we see the importance of early setting of nursery stock, especially small fruits. This work is something that cannot be put off. Transplanting should be done as soon as the ground is in condition to work. When you should be making garden you should be setting your berry plants.

Early setting insures the good stand and quick growth that means a good fruiting row.

There is stored up in the strawberry plant in its dormant winter condition a great amount of energy to be used in the first growth of spring. Plants should be re-set while still dormant so that this new growth takes place after transplanting. After the new spring leaves have come and blossom buds are out, the plants have exhausted their stored energy and resetting is a great shock if not fatal to them.

We DO NOT offer plants for fall setting.

PLANT SPACING

Fruiting rows in commercial fields where at least part of the picking is to be done by tiring or careless children should be spaced at about four feet. In smaller patches where the picking will be done with more care to the plants, we can cut this space down considerably, maybe to as little as three feet.

The distance in the row will depend upon the ability of the variety used to make new runners. We set such kinds as Premier, Fairland and Vermilion at about eighteen inches, varieties like Catskill, Temple and Dorsett at about two feet. Such freerunning kinds as Blakemore, Robinson, Dunlap, Tennessee Beauty, Armore and Dixieland will generally make a good row if set as far apart as thirty inches.

The number of plants needed per acre therefore depends upon the variety used. From the above spacing, it will take slightly more than 7000 plants for an acre of Premier, Fairland and Vermilion. About 5500 plants will set an acre of Catskill or Temple, while Robinson, Blakemore, Tennessee Beauty and Armore need only 4500 plants.

We favor the matted row system for the best and cheapest production, but strawberries will not do well in size of fruit or in total marketable fruit if the plants are too close together. By matted row we mean a row twelve or fourteen inches wide with the individual plants about four inches apart in the row. If the year's growth leaves them closer, the smaller plants should be rigorously thinned out.

We can obtain somewhat lower total yields but some very fancy large berries if we use the hill system. Using this method, the plants are set closer together and all runners kept cut off, making a very large plant with plenty of growing room. This method is described in detail in the everbearer discussion on page 23.

The first runners should be encouraged to take root for they will do best the following year. If the row shows signs of getting too thick because of too many runners, the later runners may be permitted to grow out into the space between the rows, then cut off by a sharp disc.

Batesville, Indiana

April 25, 1958

"Enclosed find check for 1.00, balance I owe you on my order of 1000 strawberry plants. I want to say that they are truly wonderful plants."

TRANSPLANTING

Strawberries are transplanted successfully in many ways, and with a variety of tools. For small patches, a garden trowel or small spade is very handy, while for large plantings the machine transplanter does a very excellent job. Just fan the roots out as much as you can in the moist dirt of a deep hole or trench, SET THE PLANT AT THE HEIGHT IT ORIGINALLY GREW, and press the soil firmly around the roots. Don't bunch up the roots in the ground. Don't leave air pockets. Don't puddle the ground around the plant by working it when the ground is too wet.

Each spring a new set of roots starts from the crown of the strawberry plant, and in case of the one that is new set, the crown must be in the moist dirt or the new roots will not start and the plant cannot thrive. If the crown is covered, it will turn yellow and finally rot. Hence the importance of depth in setting.

If the roots of the plants are too long, we cut them back to a length of about five inches. Just for convenience in handling—it doesn't make any difference in growth.

We never bother to use water in re-setting if it is done when it should be—early. It is a good practice, though, in case of very late setting.

CULTIVATION

Cultivation should start soon after the plants are set and continue throughout the growing season. Many growers have their personal preferences in certain tools, sometimes rather expensive, for this purpose. But it is doubtful if they are any better than the usual cultivators found around most farms.

We like the garden tractors very well, even in larger plantings, since it enables you to cultivate very closely to the plant and makes hoeing much easier, and faster. Keep the weeds down, keep the ground level, loose, and friable.

In dry seasons it is often necessary to imbed the runners in the damp underneath soil to enable them to take root early and develop a good root system. The first runners should be encouraged to take root, for they will make the largest and heaviest plants, and do best in the next fruiting season.

All blossoms should be clipped off in the new patch as soon as they are well formed, and from everbearers until the plant is thoroughly established, about July 1st.



Labor Saving, Home-Made Mulcher Used By L. S. Garver, Youngstown, Ohio

MULCHING

Mulching should be done in the fall as soon as possible after the summer's growth is finished — before really severely cold weather.

What to use and how to apply it can best be decided with the purposes of mulching in mind — (1) to prevent winter damage from excessive cold when plants are unprotected and from alternate freezing and thawing, (2) to conserve moisture in the bearing season and keep the soil in better condition, (3) to keep down weeds, (4) to keep fruit clean, (5) to retard growth somewhat in early spring, thereby lessening the danger from early frosts.

We generally use wheat or rye straw, scattering it to a depth of about three inches and requiring approximately three tons per acre. Other good materials are shredded fodder, spoiled ensilage, cane pumice, saw dust, corn cobs, chopped hay. A good grower near Slavans, Kentucky, uses the wood shavings litter from his broiler house.

Use the material that is handy, easy of access, and that can be easily and cheaply applied. Avoid if possible any material that may have weed seed, clover seed or grain. Oats straw is generally undesirable because the grain will sprout in the spring and make quite a bit of growth. For the same reason it is a poor practice to top dress a berry field after the plants are grown, unless you are very sure that there are no grass or weed seeds in the material used.

Early in April, just when new growth starts and the berry plants begin to turn white under the mulch, you must go along the row and lift off just enough of the mulching material to allow the new growth to come through to the sunlight.

CARE OF PLANTING STOCK

Handling of the plants after they reach you is one of the most important factors in the success of your strawberry project. We try to avoid delays in transit by shipping on the first three days of the week only, and will advise you when shipment is made. Check with your express agent or postmaster so he can notify you quickly when the plants arrive and you can pick them up at once.

Set them out at the earliest feasible time. Should weather conditions or wet ground delay transplanting, make arrangements to keep the plants cold. If they are dormant and are kept at temperatures of 30° to 32° they will stay in perfect condition for an indefinite time. Your refrigerator is a good place for small packages, and most locker plants or wholesale grocers can find a place for a few thousand plants for quite a long time. Just keep the plants cold.

If you simply must hold plants and have no cold place, then heel them in. That is, dig a deep, narrow trench, break the bundles, and set the plants along in the trench just touching each other. Cover to the crown with moist earth, then sprinkle with water. If necessary, cover temporarily with some loose boards or roofing to prevent drying from wind and sun. Set in the field as soon as planting conditions are favorable.

Just before setting, let the plants sit in water until the roots are thoroughly wet. Let them plump up for an hour or so. Keep the roots moist until they are in the ground. Do not drop the plants too far ahead if you are hand setting. Do not let them dry out in the transplanter box while you are doing something about the machine.

Be careful all the time.

OUR GUARANTEE

We guarantee our plants to be true-to-name, dug from new beds, free from injurious plant diseases, of the best quality the trade affords, and to reach you in good growing condition.

If the plants are faulty in any way and we are notified at once upon their arrival in your hands, we will either refund the purchase price or replace the stock, at the buyers option.

On account of the fact that growing conditions are far beyond our control, we cannot be responsible for the success of the crop, and in no case will be accountable for more than the original purchase price.



At Work in Renovation

While some strawberry growers find it profitable to fruit a field only one year before plowing it up, most growers consider it best to hold the field for two bearing seasons. Generally the fruit is not as large the second year, nor is the total yield as large. This comes from the fact that for the most part the same plants bear the second year, and they are not as large or as vigorous because the root system is much smaller. Each year the old roots of the plant die, and the new roots that have come from the crown are generally weaker.

Renovating an old field and preparing it for another year's fruiting is likely to be one of the toughest jobs a grower has. Every patch has its own problems in kind of soil, infestation of weeds, kinds of tools available, so that no set rules can be given for the task.

As soon as possible after the fruiting we mow the patch—clipping off the leaves but not low enough to injure the crowns. Then rake the field and remove the loose material, especially the mulch. We then go along each side of the row with a tool of the roto-tiller type, stirring up the ground between the rows and narrowing what is left to a width of eight or ten inches. Hoe the rest of the row thoroughly. This should leave a very nice row, after which the patch can be handled as it was the first year. In a good growing season the row should be practically as good.

We like to sow about 500 pounds of 10-10-10 fertilizer right in the row just as we start renovation.

We are glad at any time to answer questions not covered above, and have a very personal interest in your success with our plants.

SPRAYS AND CHEMICAL AIDS

While the strawberry has its full share of insect and fungus enemies, they are of such a nature that they can for the most part be best controlled by simply planting good disease-free plants in disease-free soil. They do become a more serious problem in older plantings and in sections where berries have been grown extensively for some time.

There is no point in indiscriminate dusting or spraying; we should dust or spray for a definite insect or disease. Some more likely problems may be:

- (1) To combat grub worms, cut worms, wire worms, root weevil, or other ground-dwelling insects, apply chlordane at the rate of 10 pounds (actual) or aldrin or dieldrin at 5 pounds (actual) per acre to the soil in any convenient way before transplanting and work the chemical in well.
- (2) Spittle bugs are recognized by the familiar foam like spittle masses on the plants. The tarnished plant bug is a variously shaded brown, somewhat difficult to spot, generally less than one-fourth inch long. The bud sucking of this bug makes deformed berries, most often resulting in "cat faces". Sometimes the damage is so great that the fruit is more like a button than a berry.

Spittle bugs and tarnished plant bugs can be controlled by using $\frac{1}{2}$ pound of 50% wettable dieldrin and 2 pounds of wettable DDT or TDE in 100 gallons of water per acre. Apply just before the blossoms unfold. Not perfect control, but generally well enough to make the damage negligible.

- (3) The strawberry leaf roller—the larva stage of a tiny brown moth—eats on the leaf, spins a web along the mid-rib, and causes the leaflet to fold together and die. Spray with 100 gallons of water per acre containing 3 pounds of lead arsenate and 2 pounds of 50% wettable DDT or TDE just before blossoms open. For new set patches, it will take less material as a band spray to just cover the row. Repeat two times if necessary at monthly intervals.
- (4) Weed control. Many growers have materially lessened the amount of time and expense for weed control by the use of the chemical Sesone or Craig Herbicide No. 1. Applied at the rate of 3 or 4 pounds to the acre in enough water to wet the soil a quarter of an inch or so, possibly a month after the plants are set, this chemical will kill weed seeds as they sprout. Since it will not harm plants already growing, it is applied only after the patch has been well plowed and hoed. Repeat a month or so later as weather indicates.

CHOICE OF VARIETY

With the introduction of so many new and good varieties of strawberries from the work of the plant breeders at the U.S.D.A. and the many state experiment stations, just choosing the kind we want to use has become quite a problem.

More confusing, the results of the various test plots vary so much; from year to year at one station as well as from station to station for the same year. Thus at the Purdue experimental plot Catskill in 1957 ranked thirteenth among 25 varieties with a yield of 4200 quarts per acre. In the same plot in 1958 Catskill ranked first with a big 7800 quarts per acre. In the same tests, Tennessee Beauty ranked first in 1957 with 6200 quarts but fell to tenth in 1958 with a total yield of 5000 quarts per acre.

Different and changing weather conditions, late frosts, drought, excessive moisture, high temperatures at picking time, plant production the previous year, insect and fungus damage, all these items are variable factors affecting the picture.

It is a pretty good rule to choose for the greater part of your plantings the varieties that have done well for you and in your community. Experiment with other recommended kinds in smaller sections to see what they will do.

The table below gives some general comparisons, while in the following pages we have tried to point out the varietal characteristics in more detail.

	Yield	Firmness	Quality	Size	Season
*Premier	Very good	Fair	Good	Good	Very early
Premier	Good	Fair	Fair	Good	Early
Catskill	Very good	Good	Good	Good	Mid-season
Temple	Poor	Fair	Fair	Poor	Mid-season
Fairfax	Poor	Good	Very good	Very good	Mid-season
Vermilion	Good	Good	Good	Good	Mid-season
Fairland	Fair	Fair	Good	Fair	Mid-season
Dorsett	Poor	Fair	Good	Good	Mid-season
Empire	Good	Good	Medium	Large	Rather late
Sparkle	Good	Good	Good	Medium	Mid-season
Poca- hontas	Very good	Very firm	Rather tart		Mid-season
Robinson	Very good	Fair	Good	Very large	Late
Tennessee Beauty	Very good	Very firm	Tart	Fair	Late
Blakemore	High	Very firm	Tart	Fair	Mid-season
Dixieland	High	Very good	Fair	Good	Mid-season
Armore	Good	Good	Good	Good	Late
Dunlap	Fair	Fair	Very good	Fair	Mid-season

^{*}The old Premier, Howard No. 17

PREMIER

Whenever strawberry men speak of Premier berries they are referring to the Howard No. 17 strain that has been so tremendously popular since its introduction nearly fifty years ago. It has performed especially well in areas of high altitude or high latitude, indicating that it does best where the temperatures are not excessively high.

Premier remains the favorite in the great berry producing Berrien and Van Buren counties in south west Michigan. It is primarily a favorite for local markets and for processing; indicating that it is not as firm a berry for shipping as such varieties as Tennessee Beauty, Blakemore, Pocahontas, but that it excels in total production, has a dark color when full ripe, strong flavor, and can be cleaned without too much trouble.

Premier foliage is light green, leaves rather cupped, remarkably free from disease, growing close to the ground. The first fruit is large, liable to be cock's comb in shape or double, firm enough for reasonable handling. Later berries are somewhat smaller, with conical shape. Bright red when ripe, getting darker and greener as they stay on the vines.

No berry is frost proof, but Premier is the nearest thing to it that we have. Berries are close to the ground to minimize frost damage, while several fruiting stems appearing in sequence tend to lessen the danger from frost at any time.

Premier (Howard No. 17) is still one of the very best kinds. Its quality is good enough for dessert or freezing. It is firm enough for local markets, sometimes for distance shipping. Still the most dependable for year in, year out, performance. The standard for comparison of all other kinds.

Unfortunately, the virus-free Premier strain from the U.S.D.A. is not the Premier at all. The foliage is lighter in color, the plants smaller and there are many more of them. There is generally only one fruiting stem. The berry is lighter red, softer, more sour, less attractive.

Many growers who have worked with Premier for a long time prefer the old Howard 17 strain, so we carry the two strains separately. In ordering, please specify the kind you wish if you have a preference.

Homewood, Illinois

March 10, 1958

"—What I wish to say is that I cannot understand how you can sell such beautiful plants at such low prices."

Herman Meyer

ROBINSON

Sometimes known as Scarlet Beauty, sometimes as Kardinal King, Robinson caught on with growers quicker than any variety since the advent of Premier. Favored by commercial grower and gardener alike.

Robinson is very popular in northern climates. Michigan State University estimates that 60% of the berries grown in Michigan are of this kind. The greater part of this acreage is sold as fresh fruit, much of it through the great Benton Harbor market to be retailed in many large northern cities.

Robinson will do well throughout the Premier territory. Plants are of the same general type—light green, healthy foliage, cupped leaves. The plants are deceivingly small to produce such a large berry, and they run so freely that they often get too thick in the row for best performance. Robinson ripens five or six days later than Premier.

The berry is smooth-skinned, glossy, bright red with prominent yellow seeds and bright green cap that make a very attractive appearance. Another trait is the very large size of the berry—the largest we know. We generally think that berry size is acceptable if 100 will fill a quart. We have had numerous letters from growers who found that 16 and 17 berries would fill a quart. One grower found 14 berries that would do it.

While they ship fairly well, Robinson berries are not very firm, especially in wet, hot weather. The flesh is very light, sometimes the centers are hollow. Not favored too well by processors because of the light color and mild flavor. The first berries are likely to be white on the tip while the blossom end shows red.



Catskill for fruit

BLAKEMORE

A favorite of many years standing, according to U.S.D.A. figures Blakemore is still grown on more acres than any other variety, in spite of the performance of the relatively new Tennessee Beauty, Pocahontas, Dixieland and Armore. Blakemore is very responsive to care and attention, but is also such a rough and ready sort that it does well under conditions of neglect and abuse.

Foliage growth is vigorous and abundant. Plants are generally healthy. Tolerant of the viruses, resistant to leaf spot and leaf scorch. Makes a great many plants, requiring attention to prevent them from being too thick.

The fruit ripens uniformly, rather early. Smoothly rounded, nice green cap with attractive appearance. The berry is very firm and solid, prime requirements for a shipping variety, in which class Blakemore is very good. A good yielding kind, adapted especially to the southern fruit belt, but we have seen some very nice fields this far north. This berry is quite acid, high in pectin, pretty good for processing.

With us, the quality of this berry has not been as good as we like, and the yield has not been high. It is quite tart and firm, without the redeeming feature of rich flavor. It is also susceptible to "June Yellows", which is liable to develop at any time in spite of very careful selection.

TENNESSEE BEAUTY

Easily the best of the new kinds from the Tennessee Experiment Station, Tennessee Beauty has many of the characteristics that have made its parent Blakemore so popular. It is so good that it has replaced Blakemore in the wide spread southern fruit belt, and would be more popular farther north if it had some other name.

Tennessee Beauty is a free-running variety, making a very nice row of large plants. Sets a lot of fruit and stands very high in total production. Late season in ripening.

The berry is bright and showy with a bright green cap, of better than average quality, with a good strong strawberry flavor. Flesh is very firm, skin tough, to adapt it as a good shipping berry. Rather tart, a little like Blakemore in this respect.

This Tennessee Beauty is one of the best varieties. Very hardy, high in production, good quality, excellent for freezing. Firm in texture for distance shipping, nice appearance. The plants should be kept thinned out in the row to maintain the berry size. This size is liable to drop in late season if the row is too thick or other adverse conditions occur.

CATSKILL

Catskill is one of the very best of the commercial varieties, with a wide adaptation from eastern Tennessee north to include Michigan, Wisconsin and Minnesota, from the New England states west to Nebraska.

The fcliage is vigorous and healthy. The plants are large and rugged, running freely and making just a nice fruiting row. The flower stalks are heavy and stand high, blossoms are quite large.

You cannot beat this variety for production. In the tests at Purdue in 1958 Catskill topped the list of twenty-five kinds with a whopping 7800 quart yield on a two year old patch. A high percentage of this yield was of large, marketable fruit.

The berries are bright red at first, getting darker as they ripen, and they are easily capped, which makes them a favorite in growing for processors. Not as firm as Blakemore, Tennessee Beauty and the others that we think of as shipping berries, but plenty solid for local marketing. A good dessert berry and good for freezing, too.

On account of its high production records and its favor with processors we are apt to think of Catskill as a commercial berry, but its high dessert quality and freezing qualifications recommend it as an excellent garden variety as well. Ripening a little later than Premier, Catskill becomes a choice kind for supplementing Premier and extending the fruiting season.

I think that the nicest bearing patch I ever saw was of Catskill, owned by W. R. Chitwood & Sons of Dayton, Ohio. Beautiful berries, commanding a high price and ready sale on the Dayton market.

DIXIELAND

Dixieland is a Blakemore cross that is making a determined bid for favor throughout the territory where its parent has been so popular for so long. From many sections good reports have indicated that it is taking over a good part of the acreage.

Dixieland is a berry of the Blakemore type. The plants run freely and make a nice row, but the Dixieland plants are quite a bit larger and are somewhat thinner in the row. This resulted in much larger berries in the Dixieland patch.

The fruit is large, bright red, very firm, a little tart, an excellent shipper with an attractive appearance. Pretty good as a dessert berry, very good for freezing.

Dixieland has consistently outyielded Blakemore under like conditions.

ARMORE

The many favorable reports we have had from many growers on Armore indicate that in this variety we have the plant breeders dream—a berry that inherits the good qualities of both parents. From Aroma it gets large size, attractive appearance, good quality. From Blakemore we have those qualities that have made it so important to the southern grower.

We think that Armore has not yet been fully appreciated. In tests at Orleans, Indiana, under Purdue supervision in 1958 Armore topped all varieties tested with a whopping production of 19300 quarts per acre. Equally important, the percentage of marketable berries from a size standpoint was still more outstanding.

For the Ohio Station at Wooster in 1955 and 1956, the runner production of Armore was very high, berry production was near the top, size of the berry second only to Robinson, sugar content highest of all varieties tested.

Armore is a free running variety, especially adapted to silty loam soils. Makes heavy yields of large, cherry red, glossy, firm berries of very high dessert quality. A late berry.

FAIRFAX

Fairfax generally makes a nice row of very large, healthy plants. Not so many plants, but large ones. Roots are heavy and long, crowns very large. Blossoms large, fruiting stems high and heavy.

The berries are large, attractive, deep red flesh with bright yellow seeds. Many people favor the mild, distinctive flavor.

A very good kind for your garden, for dessert purposes, for local trade. This berry has never yielded well for us.

DORSETT

Introduced at about the same time as Fairfax, Dorsett resembles it in many ways. The foliage is somewhat heavier with the plants thicker, and the leaves drooping, darker in color.

Berries large, glossy, bright yellow seeds, very attractive. Excellent dessert quality, very good for freezing.

When weather conditions are perfect, Dorsett is just tops in strawberries. However, this variety seems vulnerable to any adverse circumstances and too often fails to come up with satisfactory performance.

POCAHONTAS

A new cross between Tennessee Shipper and Midland, Pocahontas is one of the most promising of the new varieties.

At the Purdue tests in 1957 and 1958 Pocahontas ranked high in total yield and in size of berries. In the Ohio tests at Wooster, Pocahontas ranked high in total yield, high in size of fruit.

It is a luxuriant grower, prolific plant maker. Practically equal to Blakemore and Robinson in this respect, but the plants are larger. Resistant to leaf scorch and partially so to leaf spot.

The berry is large and attractive. Skin a bright medium red, flesh red, fairly firm, glossy. Has a good dessert quality and is good for freezing, too. Second early or mid-season in ripening. Pretty tart.

We rather think of Pocahontas as adapted especially to the northern part of the Blakemore territory, where it is gaining favor on account of the size of the fruit.

EMPIRE

Empire was developed in New York state, where it is one of the best. The merits of this berry seem to have been lost in the consideration of the many other good kinds that have come along about this time.

It is a berry of real merit. The berries are large, attractive, highly flavored, of very good dessert quality. Adapted to what we have thought of as the Premier territory. Quite productive.

Easily makes a nice row. Well worth trying.

LATHAM RED RASPBERRY

Latham is a superior quality red raspberry that does well in a wide variety of soils and climates. Thrives in all sections.

A big hardy berry larger and more productive than any other red. Easy to grow. Large fruit, nice red color, marvelous flavor.

Easily the best in its field.

Prices on No. 1 1-year plants:

Per	25	\$1.50
Per	100	\$4.00

Transportation not paid.

In some strawberry growing centers, especially where berries have been grown for a number of years in the same location, "red stele" has become a very serious threat. In this virus disease the stele, which is the duct in the center of the root leading to the crown, and which in a normal healthy plant is like a slender white thread, turns to a red-dish brown and dies. Since the stele is the plant's life line, it too wilts and ultimately dies.

The trouble climaxes just at bearing time, and too often a nice prospect for fruit has been ruined in a matter of days.

There is no spray, dust or other treatment that will do any good. The best thing to do is set disease free plants in new ground where strawberries have not grown. Some growers have been able to use varieties not susceptible to red stele, or not affected by it.

Vermilion, Sparkle, Fairland and Temple are the best of these kinds.

VERMILION

Vermilion has performed very well in competition with other varieties in tests at the University of Illinois where it originated. In the 1957 and 1958 test plots at Purdue, involving 25 good varieties, the total production on the Vermilion for the two years was the highest of all - 12,900 quarts per acre.

The Vermilion fruiting is very nice, made of a good number of large plants rather than many small ones. The berries are not really large, but the size is maintained well throughout the season, so that the average size is quite satisfactory. The skin is bright glossy red, vermilion. Nice quality fruit, rather on the sweet side. Nice dessert quality, good for freezing. Firm enough for local and shorter distance handling.

Vermilion is one of the top varieties for the northern fruit belt especially, and has the very distinct advantage of being resistant to the most common strains of virus.

Greenville, Ohio

May 5, 1958

"Please send me at once 100 Everbearing strawberry plants, your choice of the variety you think is best. The seven hundred I received are doing fine and are starting to grow. Do not think I lost half a dozen plants."

Ray W. Bowman

SPARKLE

Sparkle is a free-running plant maker that should be watched to prevent making a row too thick.

The berries have a nice glossy skin, rich red clear through. Rates high for dessert quality, for freezing and for general processing purposes. A great many berries are set per plant, and under adverse weather conditions as to moisture, or if the plants are too thick in the row the later berries are liable to run small.

Total yield of fruit has been high. At the Purdue tests in 1957 and 1958 the average yield was 5900 quarts per acre, which was fifth in a group of 25 varieties.

Late in ripening, Sparkle is one of the best kinds for the northern latitudes. A bit difficult to cap.

Very resistant to the most common type of red stele disease.

We have a very small stock of this variety, so must limit sales to 1000 to a customer.

FAIRLAND

Fairland is one of the more productive varieties resistant to the most common red stele strains and very tolerant of virus diseases.

A nice growing variety of the Premier type, Fairland is adapted to the northern berry section. Broad, light colored cupped leaves help make a good row.

The berries, ripening about the time of Premier, are medium to large, red clear through, excellent quality for dessert and freezing. They do pretty well in production, too, averaging close to 5000 quarts per acre.

TEMPLE

I think that Temple makes the nicest rows of any variety. The leaves stand large and very high, crown and root systems very heavy. Makes a lot of runners too, with a red color showing through the skin along stem and leaf.

One of the first recognized red stele resistant varieties.

We have had many conflicting reports on the performance of Temple. In eastern states the total yield has been exceptionally good and the overall performance very satisfactory. At the same time some southern Indiana growers have been warm in their praise.

With us, however, Temple has not done well. While foliage growth has been especially good, the fruit has been too small and the total yield unsatisfactory. Mid-season in ripening.

SENATOR DUNLAP

This is the great old variety too well known to strawberry lovers to need lengthy description, as it has been a very popular favorite for a great many years. It is a hardy grower and prolific plant maker, the sort of rough and ready variety able to take a lot of abuse and still come up with a good crop. While we certainly would not recommend such treatment, we have seen Dunlap come up with very nice berries after being abandoned to the weeds the previous year.

The hardiness of Dunlap adapts it to the far north of the country - Northern parts of Michigan, Wisconsin, Minnesota and Dakota, where it is a great favorite. Cooler climate makes it a little firmer there, and of even better quality.

The berry is medium sized, dark red clear through, very rich in flavor, very good for your garden. Not a good commercial kind because the fruit turns too dark after sitting, it is liable to run small in late season, and it is not tough enough to handle well.

We may be partial to Dunlap because it was the main crop variety when we first got acquainted with berries fifty years ago. We still think it is the richest flavored, highest quality berry you can have, used any way you like.

Mid-season in ripening, just a few days later than Premier. Try this berry on fertile, moist soil, keep the plants well thinned, and discover strawberries at their luscious best.



4-H Project — September Berries

New Ringgold, Pennsylvania

May 9, 1958

"We received our strawberry plants in fine condition and they are such nice plants. We never got nicer plants than yours. We certainly have a nice little patch from the ones we got of you last year. They look so fresh and green. I am glad I placed my order of plants with you."

EVERBEARERS

For many years we have been very dubious about the culture of everbearers, and in fact have advised against their use in many cases. We had observed too many failures. Many were "near misses", to be sure, but still very doubtfully successful. Also, varieties showed a tendency to "run out". This came about from the fact that the plants that made the most runners made fewer berries, and the plants that bore heavily made relatively few runners. Thus in propagation of the variety by new plantings, the plants used were generally from the lines which bore least.

However, recent very successful experiments at the Ohio experimental station at Wooster have showed how anyone can have an abundance of fresh berries throughout late summer and early fall, with relatively little expense and trouble.

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x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x

The planting pattern is as shown in the accompanying diagram. The plants are set 1 foot apart in rows 1 foot apart. Three or four rows are set, then enough space is left to walk through, and another group of rows are planted, and this pattern is continued through the patch.

Cultivate the plants once and hoe out remaining weeds. Then cover the entire planting to a depth of 1 to 1½

inch with saw dust, and maintain this mulch throughout the summer, being careful not to cover the crown.

If more weeds come through the saw dust they must be pulled or clipped off, since hoeing would mix the soil with the saw dust. Sometimes more saw dust must be added to maintain its depth to a full inch throughout the season.

Use the hill system, that is, cut off all runners as they start and keep for fruiting just the plants that were transplanted in the beginning. If no sawdust is available, ground corn cobs will do almost as well.

This method has generally been very successful in producing real crops of very beautiful fruit. Sometimes, in cases of extremely dry weather, it is a good plan to add some water for irrigation, but in most cases the saw dust mulch has held the moisture quite well.

We cannot recommend this saw dust method of growing everbearers as a good commercial proposition except in very special cases, such as roadside stands where large clean fruit would command extra good prices. In large plantings the expense is heavy in both time and money. But if you have a little extra time and necessary material is readily available, the saw dust method offers a wonderful sort of hobby with an outcome both interesting and profitable.

Since most everbearing plant sales are in relatively small numbers and therefore involve relatively small sums of money in single sales, too many "new" or different varieties have been taken as the subjects for promotional schemes by a few nurserymen. In these cases the plants have been sold at unreasonably high prices, the buyers disappointed. Watch out for this situation again.

Everything considered, Everbearers do marvelously well. They are an-out-of-season delicacy, a favorite dish with all the family and a fancy dessert for guests. Plants are handled just the same as other strawberries. They are set early and carefully tended. All blossoms are kept clipped off until the plants are well established about July 1, after which they are allowed to develop and fruit is available till frost.

Everbearers get their name from their ability to bear fruit during the late summer and fall season. They do best in the year when they are set, but they cannot compare in total production with the June bearers, although some kinds do perform creditably the next spring season. Thereafter it is best to just abandon the patch. Generally, renovation will not pay and it is much better to set new plantings each year.

TWENTIETH CENTURY

We have had many reports from different places that this everbearer has done very well and is well liked., both for quantity and quality of its fruit. We have grown it now for three years, and for us to date Twentieth Century has not done as well as Gem or Superfection. Hot summer weather seems to affect it badly to make the berries rather soft. Not a good plant maker.

Twentieth Century plants are large, leaves are heavily veined, light green. Berries medium size, dark red, rather sweet. If you are interested in Everbearers, this variety is worth a trial. Maybe your conditions will favor it.

GEM

For many years we have considered Gem as tops in the everbearing field, and we think more highly of it as we receive more reports on the exceptional performances of Superfection and the "new" Brilliant. For everything said of these two varieties applies also to Gem, as they are, we think, so nearly if not exactly the same.

Gem is superior in many ways. Grown by the hill system with the saw dust mulch, the mother plant becomes large, with many large leaves. If used in the matted row manner, a good row is made. Leaves are smooth and waxy looking and practically free from leaf spot to which many kinds are subject.

Berries are large and showy, firm enough to handle nicely. The berry is somewhat tart but has a nice flavor. Not equal to some of best June bearers in quality but still acceptable.

SUPERFECTION

When we obtained our foundation stock of Superfection a few years ago, we could see no difference between this "new" everbearer and the Gem we had had for many years.

Since then we have seen the two varieties grown side by side in several cases, and we can see no difference, and most nurserymen agree on this observation. Superfection is capable of all the production feats credited to Gem.

In the Ohio production tests Gem and Superfection made the best records where the sawdust was used. We can recommend them highly.

STREAMLINER

Streamliner is one of the newer everbearers that has given a very satisfactory performance in many sections. So many good reports have come in for it that we think it very worthy of a complete trial.

Streamliner runs freely to make a very nice row. The leaves are round and dark, smooth, glossy, cupped, with serrated margins.

Berries are medium to large, dark red, rather rough, with pleasing flavor.

Directions for Purchasers

We pay transportation charges only when plants are ordered at the 100 rate.

All other prices are f. o. b. Pierceton, you pay transportation.

Shipped by either parcel post or express. Be sure to tell us how to ship. Large orders we send express unless otherwise directed, small orders by parcel post.

A special commodity express rate applies to out of the state strawberry plant shipments from our express station. This rate is much lower than regular 2nd class express. Ask your express agent.

If sufficient money to pay parcel post charges is not sent with order, plants will be sent C.O.D. for the amount of the postage due, for we cannot keep accounts and send bills for small items of postage. C.O.D. charges are high, so be sure to send ample postage and we will refund the difference due you.

Shipping weight varies with the season and the variety, but will approximate 4 pounds per 100 plants.

PLEASE WRITE YOUR NAME AND ADDRESS PLAINLY.

Please give us your telephone number in your letter.

STATE OF INDIANA DEPARTMENT OF CONSERVATION DIVISION OF ENTOMOLOGY INDIANAPOLIS

Certificate No. 411

Fairview Fruit Farm Glenn P. Galloway Pierceton, Indiana

CERTIFICATE OF NURSERY INSPECTION

This is to certify that the Nursery stock grown by the individual or firm whose name appears hereon, consisting of 30 acres, has been inspected by the undersigned or his authorized representative on August 5, 1958 in compliance with Chapter 177, page 291, Indiana Acts of 1907, and has been found apparently free from destructively injurious insects and plant diseases.

This certificate covers small fruit and is valid, unless revoked for cause, until August 1, 1959.

Issued: August 12, 1958

JOHN J. FAVINGER State Entomologist

ORDER SHEET

FAIRVIEW FRUIT FARM

PIERCETON, INDIANA

	Da	ate	3511.00	810.78	. 19	
Name	1.95	9.00	11.00	10.75	30,00	
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Express Office	1.75	3.00	11.00	10.75	16.50	
Shursett						
State	1.00	3,09	11.00	10.75	3,0,50	
Maldanon				9.75		
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Beauty	1.25	2.90	10.00	8.78		
QUANTITY	- V A	RIETY	10.08	9.73	PRICE	
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1959 PRICES

				5,000 per	10,000 per	25,000 per
Variety	50	100	1,000	1,000	1,000	1,000
*Premier	\$1.25	\$2.00	\$11.00	\$10.75	\$10.50	\$10.00
Premier	1.25	2.00	11.00	10.75	10.50	10.00
Catskill	1.25	2.00	11.00	10.75	10.50	10.00
Temple	1.25	2.00	11.00	10.75	10.50	10.00
Fairfax	1.25	2.00	11.00	10.75	10.50	10.00
Vermilion	1.25	2.00	11.00	10.75	10.50	10.00
Fairland	1.25	2.00	11.00	10.75	10.50	10.00
Empire	1.25	2.00	11.00	10.75	10.50	10.00
Sparkle	1.25	2.00	11.00	10.75	10.50	10.00
Dorsett	1.25	2.00	11.00	10.75	10.50	10.00
Pocahontas	1.25	2.00	11.00	10.75	10.50	10.00
Robinson	1.25	2.00	10.00	9.75	9.50	9.00
Tennessee						
Beauty	1.25	2.00	10.00	9.75	9.50	9.00
Armore	1.25	2.00	10.00	9.75	9.50	9.00
Blakemore	1.25	2.00	10.00	9.75	9.50	9.00
Dixieland	1.25	2.00	10.00	9.75	9.50	9.00
Dunlap	1.25	2.00	10.00	9.75	9.50	9.00
Gem	1.50	2.50	15.00	14.00	13.00	12.50
Superfection _	1.50	2.50	15.00	14.00	13.00	12.50
Streamliner	1.50	2.50	15.00	14.00	13.00	12.50
20th Century _	1.50	2.50	20.00			

^{*} Indicates old strain of Premier.

500 or more at the 1,000 lot quotations.

On orders of less than 500 plants we pay postage at above prices.

We do not pay transportation charges when the price is figured on the 1,000 lot basis.

Please read carefully the instructions to customers on page 26.

Please note that our address is Pierceton, not Princeton.

We are located on State Road 5, eight miles north of its intersection with U.S. Road 30.

Our telephone - North Webster TE. 4-1854

Our References: Farmers Loan and Trust Co., Columbia City, Indiana; Postmaster, Pierceton, Indiana; Express Agent, Columbia City, Indiana; Frank N. Wallace, Indiana State Entomologist.